

WHAT IS CLAIMED IS:

1. An isolated antisense oligonucleotide that specifically hybridizes within an accessible region of P2X2 mRNA in its native form, wherein said antisense
5 oligonucleotide inhibits the production of P2X2.

2. An isolated antisense oligonucleotide consisting essentially of 10 to 50 nucleotides, wherein said oligonucleotide specifically hybridizes within an accessible region of P2X2 mRNA, said region defined by nucleotides 231 through 249, 589 through
10 617, 650 through 668, 829 through 846, 940 through 957, 1246 through 1273, or 1429 through 1446 of SEQ ID NO:1, and wherein said oligonucleotide inhibits the production of P2X2.

3. A composition comprising the isolated antisense oligonucleotide of claim
15 2.

4. The composition of claim 3, wherein said composition comprises a plurality of isolated antisense oligonucleotides, wherein each antisense oligonucleotide specifically hybridizes to a different accessible region.
20

5. A nucleic acid construct comprising a regulatory element operably linked to a nucleic acid encoding a transcript, wherein said transcript specifically hybridizes within one or more accessible regions of P2X2 mRNA in its native form.

25 6. A host cell comprising the nucleic acid construct of claim 5.

7. A method of decreasing production of P2X2 in cells or tissues, comprising contacting said cells or tissues with an antisense oligonucleotide that specifically hybridizes within an accessible region of P2X2.
30

8. A method for modulating pain in a mammal, said method comprising administering the isolated antisense oligonucleotide of claim 1 to said mammal.